

CLAIMS:

1. A method for determining the level of an analyte in the blood of an individual comprising:

(i) obtaining a sample from said individual, said sample being a non-blood sample but containing blood components;

(ii) determining the volume of blood in the obtained sample by measuring the level of a blood component in said samples;

(iii) determining the amount of said analyte in the sample or in the blood cells present in said non-blood sample; and

(iv) calculating the level of said analyte in the blood of the tested individual based on the measurements in (iii) and (iv).

2. The method of Claim 1, wherein said blood component is hemoglobin.

3. The method of Claims 1 or 2, wherein said analyte is glucose.

4. A method according to Claim 1, wherein said non-blood sample is a sample of hair obtained from said individual, the method comprising:

(i) obtaining a sample of hair from said individual;

(ii) determining the amount of blood or interstitial fluid in said obtained sample and if necessary, correcting variations between different hair samples;

(iii) determining the level or concentration of said analyte in said blood or interstitial fluid and

(iv) calculating the level of said analyte in the blood of the tested individual based on the measurements in (ii) and (iii).

5. A method according to claim 4 wherein before stage (ii) said blood or interstitial fluid are first extracted from the hair follicle of said obtained hair.

6. A kit for determining the level of an analyte in the blood of a tested individual comprising:

Sub B1

- (i) means for obtaining a sample from said individual, said sample being a non-blood sample but containing blood components;
- (ii) means for measuring the level of a blood component in the sample;
- 5 (iii) means for measuring the level of the tested analyte in the obtained sample;
- (iv) means for calculating the level of the tested analyte in the blood of the tested individual on the basis of the measurements obtained in (ii) and (iii) above.

10 7. A kit according to Claim 6, further comprising means for separating said red blood cells from the sample.

8. A kit according to Claims 6 or 7, further comprising means for lysing said red blood cells.

9. A kit according to Claim 6, further comprising a test strip 15 incorporating reagents or structures necessary to carry out the measurement of the tested analyte and blood component and a instrument into which the test strip can be inserted into or to which the test strip may be connected; said instrument capable of detecting and analyzing a signal emitted by said test strips and optionally translating said signals into prevalent units..

20 10. A kit according to Claim 6, wherein the obtained body sample is a hair sample, said kit comprises the following:

- (i) hair removal means;
- (ii) a suitable diluent in which the blood or interstitial fluid from the obtained hair is collected;
- 25 (iii) means for the determination of the level of a blood component in the blood or interstitial fluid specimen;
- (iv) means for determination of the level of said analyte in the blood or interstitial fluid specimen; and
- (v) means for calculating the level of the tested analyte in the blood of the tested individual on the basis of the measurements obtained in (iii) and (iv) above.

30

Sub B

5

11. A kit according to Claims 6-10, wherein the tested analyte is glucose.

12. A kit according to Claim 11, further comprising a metabolic inhibitor capable of preventing glucose utilization by living cells present in said sample.

E03150 - 574252/60